



# California

JOURNAL OF

## EDUCATIONAL RESEARCH

Vol. II, No. 2

March 1951

---

### IN THIS ISSUE:

- **Feature Article:**
    - Two Los Angeles psychologists review the results of research relating to emotional factors in reading retardation
  - **Needed Research in Public School Curriculum**
  - **Improving Questionnaires**
  - **Appraisal of B-E Day in San Francisco**
  - **Method of Studying Non-Conforming Pupils**
  - **Digests of Research Studies:**
    - Effect of Training During Sleep Upon Learning
    - Sex Education in the Elementary School
    - Classroom Cheating
    - Social Maturity and First Grade Achievement
    - Research and the Teaching of Written Expression
  - **Editorial: "Research — The Catalyst in Education"**
  - **Book Reviews**
  - **Research News and Views**
- 

PUBLISHED BY

**CALIFORNIA TEACHERS ASSOCIATION**

391 SUTTER STREET • SAN FRANCISCO 8

# CALIFORNIA JOURNAL OF EDUCATIONAL RESEARCH

Published by the California Teachers Association

ARTHUR F. COREY

State Executive Secretary

391 Sutter Street, San Francisco, California

## EDITOR

FRANK W. PARR

Director of Research

California Teachers Association

## ASSOCIATE EDITOR

KENNETH R. BROWN

Assistant Director of Research

California Teachers Association

## EDITORIAL BOARD

GEORGIA S. ADAMS

Research Coordinator

Pasadena City Schools

ALFRED S. LEWERENZ

Head Supervisor, Evaluation Section

Los Angeles City Schools

HUGH M. BELL

Dean, Student Personnel and Guidance

Chico State College

D. WELTY LEFEVER

Professor of Education

University of Southern California

LILLIE L. BOWMAN

Director, Bureau of Research

San Francisco Unified School District

HENRY W. MAGNUSON

Chief, Bureau of Education Research

State Department of Education

HAROLD D. CARTER

Professor of Education

University of California

DAVID G. RYANS

Associate Professor of Education

University of California at Los Angeles

MERLE H. ELLIOTT

Director of Research

Oakland Public Schools

JOHN A. SEXSON

Executive Secretary, California Association

of School Administrators

Pasadena, California

LLOYD G. HUMPHREYS

Associate Professor of Education

Stanford University

HARRY W. SMALLENBURG

Director, Division of Research and Guidance

Los Angeles County Schools

The *California Journal of Educational Research* is published at San Francisco five times a year: January, March, May, September, and November. Subscription price: \$6.00 per year; single copies, \$1.50. Editorial office address: CALIFORNIA JOURNAL OF EDUCATIONAL RESEARCH, 391 Sutter Street, San Francisco 8, California. (Checks should be made payable to the California Teachers Association.)

Entered as second class matter at the Post Office at San Francisco, California.

# CALIFORNIA JOURNAL OF EDUCATIONAL RESEARCH

Volume II

March 1951

No. 2

## CONTENTS

	PAGE
EDITORIAL . . . . .	50
Emotional Factors in Reading Retardation . . . . .	51
<i>Shirley Raines and Arthur T. Tait</i>	
Effect of Training During Normal Sleep Upon Learning . . . . .	57
<i>William S. LeVant</i>	
Some Leads to Needed Research in Public School Curriculum . . . . .	60
<i>J. Cecil Parker</i>	
Classroom Cheating — A Measure of Children's Character or Teachers' Attitude? . . . . .	63
<i>William J. Lodge</i>	
B-E Day in San Francisco: An Appraisal . . . . .	67
<i>Ivor F. Calloway</i>	
Improving Questionnaires . . . . .	73
<i>Edward A. Taylor</i>	
Sex Education in the Elementary School . . . . .	77
<i>Lloyd S. Van Winkle</i>	
A Method of Studying Non-Conforming Pupils . . . . .	80
<i>Stanley R. Ostrom</i>	
Social Maturity and First Grade Achievement . . . . .	84
<i>Margaret L. Orear</i>	
Research and the Teaching of Written Expression . . . . .	89
<i>H. Orville Nordberg</i>	
BOOK REVIEWS . . . . .	92
RESEARCH NEWS AND VIEWS . . . . .	95

## THE EDITORS SAY:

### Research — The Catalyst In Education

"ONE very important indication that California's policies in education are those of an increasing mature commonwealth is the fact that the administrators in the institutions of public education and in the independent schools and colleges alike are giving a much more constructive attention to *educational research* than in the past. . . .

"We need for our own professional guidance the most factual and concise records of past and present performance in our field that we can gather. We need this information about the teacher and the learner. We need it to meet the increasing interest of the community, especially when the community is represented by such strong lay organizations as the Congress of Parents and Teachers, as well as other civic and service groups."

In these well-chosen words Dr. Roy Simpson, Superintendent of Public Instruction for California, pointed out to the delegates at the Second Annual State Conference on Educational Research, at Mills College, on November 10, 1950, their fundamental responsibility to public education. Educational research must aid in the discovery of truth, and must disseminate this truth in the homes and schools of our land. Such research is truly a "catalyst" in educational progress.

Dr. Simpson went on further to say, "There is a healthy reflection of our professional response to these needs to be seen in the fact that the largest of our professional organizations (the California Teachers Association) has in the past few years greatly strengthened and expanded its research activity. There is also a reflection of this response in the fact that one of the important objectives in the 1945 reorganization of the (California) State Department of Education was to provide an improved facility for educational research. The studies of many problems in education conducted by the schools of education in public and private colleges and universities have been a great resource to the profession in this state for many decades."

" . . . Public debate on issues in public education in recent years has strongly emphasized the need of the profession for better methods of evaluating our own practice in relation to the broad objectives of our mission. It is proper also that continuing attention be given to informing the public about the school program in terms of data available to the profession and comprehensible to the interested layman."

Precisely to that purpose and need this journal is dedicated. May it perform with distinction as a medium for the fulfillment of this important educational task.



# Emotional Factors in Reading Retardation

SHIRLEY RAINES

Reading Consultant, Los Angeles, California

ARTHUR T. TAIT

California Test Bureau, Los Angeles, California

THE causes of reading disabilities have been under competent examination for some time. Books and articles have appeared in profusion. Various techniques or remedies have been proposed. Some remedial teachers have concentrated on the phonetic method, others have used the kinesthetic approach to the problem. Yet, in spite of such techniques or devices, there are some children who are not helped sufficiently, if at all. The difficulty, undoubtedly, is that these devices are aimed at the symptoms rather than at the causes.

It is quite evident that emotional factors of various types are often responsible for retardation in reading. Some children manifest emotional maladjustment through aggression, stuttering, nail-biting or other types of behavior. In other instances, such disturbances are evidenced through reading difficulties. As a consequence, much research is now being directed toward the identification of the relationships between emotional factors and rearing retardation. Some of the more significant studies are reviewed in this article.

## New Jersey Study

Ellis(1) recently studied the relationships between reading gains and a mental hygiene approach to children who have specific reading disabilities. His data consisted of one hundred cases from the files of the New Jersey Mental Hygiene Clinic. The subjects ranged in age from seven to fourteen years. The case history on each disability problem was examined critically and evaluated. Correlations were computed between reading gains made by the patients during the first year's contact with the clinic and other variables which were observed empirically.

A substantial degree of correlation was found to exist between reading gains and the amount and quality of remedial tutoring. The severity of

---

*Shirley Raines is a private consultant in Los Angeles who works with non-readers on an individual basis. She had formerly served as counselor at the American Institute of Family Relations. She has also had experience as a statistician and research worker. Miss Raines received her Master's degree at the University of Southern California in 1949.*

---

*Dr. Arthur T. Tait is director of research of the California Test Bureau in Los Angeles. His professional experience includes teaching and administration in Minnesota, teaching fellow at the University of Southern California, director of guidance at Bakersfield (California) College, and educational statistician for the Los Angeles County Schools. His doctorate was awarded at the University of Southern California in 1944.*

---

psychiatric diagnosis was inversely related to reading gains. In other words, the more emotionally disturbed children made less improvement. Ellis concluded that emotional factors appeared to bear vitally important roles in the etiology of reading disabilities.

### Missouri Investigation

Gellerman(2) examined the concept that school retardation should be measured in terms of the capacity level of each child. He found that diagnoses of retardation, when made on a chronological age level, were sometimes causes of reading difficulties. His data consisted of the case reports of forty-eight children obtained from the files of the child-study clinic at the University of Missouri. The subjects were referred to the clinic from various schools throughout the state because of educational difficulties.

Gellerman found that reading difficulties were cumulative and became more serious with the passing of time. He suggested that all problems should be studied and acted upon before complicating factors make damage almost irreparable. When retardations were investigated early, restoration to "normality" was possible only when the achievement level was on a par with the individual's level of capacity. When instruction was given at a level not commensurate with the child's own rate of development, it tended to instigate social, personal and familial forces which retarded the child further. These forces in turn frustrated the individual, who already was aware of his inability to be equal to his classmates, siblings, or playmates. Another cause of frustration was the association of reading with unpleasant experiences related to poor learning situations in the school or home.

### Delinquent Girls' Study

Ivancie(4) conducted an interesting experiment with fourteen academically retarded, delinquent girls who had been committed to a special Catholic school by the courts. Their ages ranged from fifteen years and one month to seventeen years and one month, while the I.Q.'s ranged from 75 to 100. These girls were divided equally into experimental and control groups, although all had requested special aid. The purpose of the study was to ease emotional blocks to learning through a tutoring-counseling situation. The experimental group was given individual interviews in a sympathetic and accepted atmosphere with a minimum of counselor direction.

All groups in this experiment showed some improvement in attitudes and subject matter, but the greatest changes occurred in the group composed of students who were allowed to talk about their difficulties. These students improved their academic grades and showed significant gains in attitudes toward their teachers and themselves.

### Missildine's Research

Missildine(5) has reported on the emotional background of thirty children who had reading disabilities. Their ages varied from seven years and three months to thirteen years. Sixty per cent of the children were eight years and six months or less, while two children were over ten years and six months. The boys made up eighty-five per cent of the group. The average school retardation was .93 years in relation to chronological age. The I.Q.'s ranged from 91 to 140, with a mean of 104. Eyesight and hearing were unimpaired.

All the children, with the exception of one or two, showed disturbances in connection with some family member at home. Some of them reacted with restlessness, indifference, or were happy-go-lucky. Others felt unhappy, crushed, and inadequate. All were acutely ill emotionally. Two thirds of the group had overly-hostile mothers or markedly tense, coercive, criticizing, perfectionistic mothers. Four of the children suffered acute sibling jealousies while learning to read. Two of the group had been indulged, then neglected or rejected when they entered school, and one was over-indulged. One child's loyalty was divided between two families exhibiting emotionally-disturbing elements.

Almost all the children were insecure, restless, and emotionally ill. Reading difficulties were only part of the total picture of maladjustment. Missildine concluded that children of normal intelligence or even superior capacity possessed emotional difficulties which impeded progress in learning.

### Subnormal and Problem Boys

Gunzburg(3) studied the reading interests and habits of thirty subnormal and problem boys attending senior class in a special residential school conducted by an institution for the feebleminded. The chronological ages of this group ranged from twelve to sixteen years, while their mental ages varied from seven to twelve years. Intelligence tests administered to this group placed their I.Q.'s from 55 to 92, with the mode around 70. In spite of their low I.Q.'s, nearly all these boys became good readers through an intensive reading program.

A questionnaire was used with the boys to test comprehension, to aid in selecting similar or better books for their enjoyment, and to make known their likes and dislikes. The book consumption of these boys was amazing. Some read as many as thirty books during a school term. The boys showed a lively and critical interest in their reading, and did not accept blindly and unintelligently the material covered. However, it was found that the stress of certain aspects of reading, although desirable from a learning viewpoint, would tend to irritate and discourage interest in the subnormal.

Gunzburg reported that a lack of interest in reading may be caused by

resistance to the inhibiting influences of society. He concluded that there may be a causal link between lack of academic success and unsatisfactory social adjustment and suggested that suitable reading materials may have psycho-therapeutic significance.

### A Case History

Strang(8) has presented an excellent case history of an eighteen-year-old boy in illustrating her procedure for the diagnosis and treatment of retardation.

Definite clues about the boy's emotional difficulty were not obtained in the first interview or in an autobiography. They were obtained from a *Rorschach Test* and later interviews. As a consequence, the youth was recommended for psychiatric treatment. Aid with reading problems was advised only as a part of the total treatment. Since his interest was keen and he had the ability to analyze effective methods of reading, he was given exercises and tests to gain the desired aptitude. He also was encouraged to use diversified reading material in order to develop fluency, good eye movements, and vocabulary growth. The youth kept a record of the books and articles he read. Strang endeavored to increase the boy's self-esteem and to direct him in reaching appropriate educational and vocational goals.

### London Experiment

Saunders(6) was concerned with testing the concept of security as a factor in social adjustment and with determining the relationship between mental insecurity and problem behavior. The experimental group consisted of fifty boys undergoing psychological treatment in certain guidance clinics in London. The group was representative of the normal clientele. Some of the boys had been referred by their parents for behavior disorders; others by legal, health, or educational authorities. Their ages ranged from 9.67 years to 13.92 years, with a mean of 11.83. The control group was made up of one hundred boys from London schools. They were equated for age and intelligence with the experimental group. Both groups made similar scores on the *Pressey Interest-Attitude Test*. Several attitude tests, individually administered, were designed to estimate mental insecurity from factors in the social environment. Chronological age, mental age, as well as other variables, were used for correlation.

The test scores, for the control group of one hundred school boys, were skewed in the direction of security and positive social responses. The clinical group contained a greater degree of mental insecurity in relation to social environment, and more marked tendencies to non-social attitude.

Saunders concluded that security could be both social and personal. There was a relationship between mental insecurity and social maladjustment and the accompanying behavior difficulties and non-social attitudes.

The mental insecurity measured by these tests was a conscious insecurity, usually associated with delinquents who expressed aggressive attitudes and tendencies. The mental insecurity of which the subjects were less consciously aware, characterized by neurotic disorders, anxieties, fears, etc., was less well measured by tests. A factor analysis of the data supported the viewpoint that mental maturity in terms of physical, intellectual, and emotional development was positively related to mental security.

### **Normal and Superior Boys**

Stauffer (7) has reported the findings and implications of an investigation concerned with the psychological manifestations of retarded readers. Fifty-one normal and superior boys, ranging in ages from nine to eleven years and in attendance in grades three, four, and five, were studied. Retardation was determined by a word recognition test and the ability to understand a selection presented visually. It was concluded that such screening tests were an effective method for identifying retarded readers.

Stauffer stressed the need of the retarded reader for more opportunities to see and say words, and the need for more individual help in formulating generalizations, organizing language, and putting ideas in order.

### **Modern Concept**

Finally Stullken (9) has pointed up the increasing sensitivity of the modern school program to social and personal adjustment. Educators are becoming informed as to the needs of the emotionally handicapped through the child study and mental hygiene movements. Symptoms of maladjustment in the child are now recognized by the school as evidence of conflict between the child and his environment. Modern schools help pupils to develop adequate personalities so as to achieve emotional stability and to profit by vocational guidance and training.

### **Summary**

The following findings may be noted in summary of these selected studies of reading retardation:

1. Reading disability is a symptom of emotional illness in many children. As a consequence, effective reading materials may often act as therapeutic agents.
2. Reading difficulties may appear when the instructional program in reading is not in accord with the child's development. Social, personal and family forces tend to spiral the resulting frustrations.
3. Reading problems are encountered by superior children as well as normal and slow-learning children.
4. Physical, intellectual, and emotional development may be related positively to mental security. A child with high mental ability may have a mental insecurity on the same level as the slow-learning child.

5. Individual counseling with delinquent girls in a permissive atmosphere tends to ease emotional blocks in learning.
6. Boys tend to develop more reading difficulties than girls. This may be the result of the way reading is taught, since boys have more mathematical and mechanical ability on the average.
7. Slow-learning boys can become good readers at their level.
8. A stable institutional environment tends to provide subnormal children with a greater sense of security and to result in improved learning and conduct.

## Implications

Parents, teachers, and schools must become more acutely aware of the need to avoid the fostering of emotional maladjustments in children. Such maladjustment is often manifested through reading disabilities and other learning problems. Various procedures are available which prevent or reduce emotional factors in learning.

Better books and educational materials must be made available to the retarded reader. Such materials, though simple and concrete, must appeal to the varied needs, maturity levels, and interests of the child. They should serve as stimuli for continued pleasure, education, and therapy.

Further studies are needed to probe the reasons for the greater reading desirability among boys. Suggested areas of investigation are: the ages of siblings, the slower maturation of the male, the number of females in the family, and female behavior toward the boy.

It is important to note that emotional factors are often linked with other factors in the development of reading disabilities. The effective treatment of such difficulties involves the total personality of the child rather than isolated sensory or intellectual abilities.

## BIBLIOGRAPHY

1. Ellis, Albert, "Results of a Mental Hygiene Approach to Reading Disability Problems," *Journal of Consulting Psychology*, 13:56-61, February, 1949.
2. Gellerman, Saul W., Causal Factors in the Reading Difficulties of Elementary School Children," *The Elementary School Journal*, 49:523-530, May-June, 1949.
3. Gunzburg, Herbert C., "The Private Silent Reading of Educationally Sub-Normal Boys," *The New Era in Home and School*, 29:21-25, February, 1948.
4. Ivancie, Mary J. Mulvey, "A Way to Ease Emotional Blocks to Learning," *Understanding the Child*, 18:45-51, April, 1949.
5. Missildine, W. H., "The Emotional Background of Thirty Children with Reading Disabilities with Emphasis on Its Coercive Elements," *Nervous Child*, 5:263-272, July, 1946.
6. Saunders, C., "Insecurity and Social Maladjustment in Children," *British Journal of Educational Psychology*, 18:148-155, November, 1948.
7. Stauffer, Russell G., "Research on Reading Retardation: Its Classroom Implication," *Education*, 68:610-615, June, 1948.
8. Strang, Ruth, "Reading Disability," *Case Histories in Clinical and Abnormal Psychology*. Arthur Burton and Robert E. Harris, edited. New York: Harper and Brothers, 1947, pp. 565-596.
9. Stullken, Edward H., "Education for Emotional and Economic Security," *Understanding the Child*, 18:99-106, October, 1949.

# Effect of Training During Normal Sleep Upon Learning

WILLIAM S. LEVANT

Stockton College

IN THE last two years numerous articles have appeared in newspapers and popular magazines which have aroused considerable interest in the possibility of learning during sleep. (1, 2, 3, 4) Such a possibility would indeed fire the imagination. The hard-working high school or college student would be quick to grasp at an effortless method of learning. Sleep-learning equipment is on the market and has been advertised in at least one college newspaper. (5) Before investing in such equipment, the student or teacher would like to know if sleep-training will really work. Will it actually help decrease the time and effort required to learn?

## Related Literature

A review of the literature revealed that the current theories of learning and of sleep lend little support to the possibility that learning can take place during sleep. Only two studies were found which were directly concerned with the problem. LeShan attempted to determine if suggestion during sleep might break the habit of nail-biting. (6) Out of an experimental group of twenty boys, who all were nail-biters, eight stopped biting their nails after listening during sleep to 16,200 repetitions of the sentence, "My finger nails taste terribly bitter." None of the control group of twenty nail-biters stopped biting their nails. LeShan concluded that his results indicate the possible positive therapeutic use of suggestion during sleep.

Elliott investigated the retention of auditory material presented during sleep. (7) Using nonsense syllables as the learning material and an electroencephalograph to be certain his subjects were asleep during training, he obtained results slightly in favor of the sleep-training procedure.

## Experimental Design

Since these two studies were neither conclusive nor concerned with academic material, this experiment was undertaken to determine whether or not sleep-training could be considered of practical value for the student. A twelve stanza poem with eight lines per stanza was chosen as the training material. Six stanzas were recorded on Record I and six on Record II. Half of the subjects were trained with one record and half with the other.

---

*William S. LeVant is a psychology teacher and counselor at Stockton College. He has been a teaching assistant at the University of Oregon, a combat infantry officer, a retail store manager for United Rexall Drug Company, and a salesman for Zellerbach Paper Company. Mr. LeVant's article is based upon his Master's thesis completed at Stanford University in 1950.*

---



Whichever record was used for training, the other was used for control. Ten adults, four men and six women, participated in the experiment. An automatic record-player was equipped with a volume control, an under-pillow speaker and a timing device. The timing device could be set to start the record-player any hour and stop it automatically from one to twelve hours later.

The sleep-training was done in the subject's own sleeping quarters. The equipment was set up, the under-pillow speaker placed and the volume adjusted to the satisfaction of the subject. The timer was set to start the record-player approximately two hours after the subject's estimated time for falling asleep and set to stop after playing for two or four hours. For the first four subjects, the training continued two hours a night for six nights with a test each morning of one training and one control stanza. For the remaining six subjects, the training continued four hours a night for three nights with a test each morning of two training and two control stanzas. Since the record required three minutes for a playing, the subjects heard twenty repetitions per hour or a total of 240 repetitions for the whole training period.

The testing each morning following the training was done by permitting the subject to study a stanza for twenty-five seconds and then having him repeat as much of it as possible. This procedure was repeated until the stanza was learned to one correct repetition. Scoring was done by counting as an error any of the eight lines of the stanza not repeated correctly on each trial.

## Results

A comparison of the total number of errors by all the subjects for the training stanzas (2,609) and for the control stanzas (2,809) indicated a slight difference in favor of the training stanzas. An analysis of variance computed from the data revealed that the differences between the training and control scores did not exceed the differences that might arise by chance, although other comparisons indicated that the meaning had high reliability. The results, therefore, did not support the possibility of learning during sleep. Even though the subjects were occasionally conscious of the training during the sleeping period, they still failed to benefit significantly from the training.

The results of this study do not permit a generalization that training during sleep cannot be effective in other respects. Many other factors may have been operating than were considered in this experiment. Since there are large individual differences in verbal-learning ability during wakefulness, perhaps there are marked individual differences in ability to benefit from sleep-training. Comparisons of the differences between subjects in ability to benefit from sleep-training cannot be made from this experiment because there were too few subjects to make such differentiations.



Still other factors may have been operating. Perhaps more repetitions of the record would have been more effective. The task may have been too difficult. However, the purpose of this study was to test the possibility of learning rather difficult material during sleep within reasonable limits of energy and time required to operate the equipment. The results lead to the conclusion that, for practical use in academic learning, neither the procedure employed nor the commercial sleep-learning equipment is of value.

#### BIBLIOGRAPHY

1. Irwin, V., "Learn While You Sleep!," *Science Digest*, 23:back cover, May, 1948.
2. "Learn While You Sleep," *American Magazine*, 145:118, May, 1948.
3. "Don Sonnambulo; Learning Opera While You Sleep with the Cerebrograph," *Musical America*, 49:11, April 1, 1949.
4. "Deeper, Deeper, Dee . . . Learning-While-Sleeping Devices," *Time*, 55:77, March 20, 1950.
5. *Stanford Daily*, June, 1950.
6. LeShan, L., "The Breaking of a Habit by Suggestion During Sleep," *Journal of Abnormal and Social Psychology*, 34:406-408, 1942.
7. Elliott, Charles R., "An Experimental Study of the Retention of Auditory Material Presented During Sleep," unpublished Master's thesis, University of North Carolina, 1947.

### U. S. Office of Education Urges Appraisal of Extraclass Activity Program

"The principle of extraclass activities for *all* pupils does not necessarily imply that all pupils participate, but rather that all pupils have the opportunity to participate and are encouraged to do so. Information on the extent of pupil participation enables the high school to compile statistics for the whole school and for the particular activity group. It provides quantitative data which may form a basis for revising the entire program. It provides qualitative data, to some extent, in that low participation in a particular activity may indicate pupil dissatisfaction. No activity is likely to persist if it does not attract pupils and hold their interest. A major reason for the study of pupil participation is to enable the high school authorities to determine what extraclass activities hold pupils' interest. Along with this information, the results of a pupil survey will indicate what activities the pupils are interested in joining.

The success of the extraclass activities program in turn depends on the success of each individual activity. If the high school is to appraise the effectiveness of the total program, it ought to have reliable information on the amount of pupil participation in all extraclass activities. — (Excerpt from *Extraclass Activities for All Pupils*, pp. 24-25, U. S. Office of Education Bulletin 1950, No. 4, Federal Security Agency, Washington, D.C.)

# Some Leads to Needed Research in Public School Curriculum

J. CECIL PARKER

University of California, Berkeley

**DURING** the first quarter of this century the educational world manifested great belief in research as the means of determining the public school curriculum. This faith was evidenced by countless research studies of usage, frequency, measurement and the like. As awareness of the extreme complexities of the processes of improving the public school curriculum developed, emphasis upon research studies as a base seemed to decline. Analytical methods of planning for the curriculum rapidly marched to the foreground.

At the present time the urgent need for evidence and data of many kinds is resulting in a renewed interest in research as a means of securing material with which to work in improving the school experiences of boys and girls. Certainly, innumerable problems are faced in any effort to improve the curriculum. Those who know the most about these problems are the first to wish for more evidence, more data with which to meet the problems. The development of the needed data depends upon many people in many situations digging in to study realistically the problems. The purpose of this brief article is to make a beginning in identifying leads to the problems that we need most to study carefully and systematically. The specific research projects will not be designed and the research methodology will not be considered at this time.

There are reasons to assume that curriculum improvement efforts will be made more effective by research studies designed to include the total school and community context of which the problem studied is a part. Upon the basis of this assumption, several leads to needed research are suggested here that demand longitudinal studies of depth in the context of the field situation.

## Needed Research—*Nature of the Curriculum*

1. What is the dominant philosophy, or point of view, of our culture? How is it translated into behavior?

---

*Well known in the curriculum field, Dr. J. Cecil Parker is associate professor of education at the University of California, Berkeley, where he has taught since 1947. Positions previously held by Dr. Parker include teacher and administrator in Missouri schools; director of research, curriculum, and guidance, at Fort Worth, Texas; curriculum director, Michigan State Department of Education; chief of educational services branch, Office of Price Administration; and curriculum coordinator, San Francisco City schools. His doctorate was earned at Columbia University in 1941. Dr. Parker serves as curriculum consultant to a number of California school districts.*

---

2. What are the values of the subgroups in our culture? How are they translated into behavior?
3. What are the elements of conflict situations in our culture?
4. What are the processes of social change available in our society?
5. What problems do boys and girls encounter as they grow up?
6. What are the facts of child growth and development?
7. What is the role of purpose (goals, drives, attitudes) in changing behavior?
8. What basic factors contribute most to carry-over from school to behavior outside the school?
9. What first-hand group experiences are possible that contribute to identification with community concerns and problems?
10. What are the behaviors of the good citizen in these times?
11. What are the most effective and economical uses of the time available for the public school program?
12. What school experiences are related? How? What things belong together?

### **Needed Research—Operational Problems in Curriculum Improvement**

1. We accept the principle, "In curriculum improvement efforts we should start where we are." How do we find out where we are?
2. We accept the principles, "Problem-centered groups are an effective way of working"—"The problems should be specific and of concern to the members of the group." How do we identify and select specific problems to use as the base for creating problem-centered groups?
3. We are concerned about the most effective means of organizing personnel in problem-centered groups for work on curriculum problems—subject field committees, grade level committees, etc. How do we organize personnel for the most effective and economical work on curriculum improvement?
4. We believe that all groups, faculties, and committees should work with all possible resources. How do we insure the availability and use of resources of all kinds?
5. Surely, it is important for individuals and groups to have time to work on instructional problems. It is accepted policy that such work should not be entirely a "leisure time" proposition. How do we provide for time to work together on instructional problems?
6. More than talk or writing is necessary. Decisions must be made. How do we establish clear-cut machinery and procedures for making decisions?
7. Decisions must be translated into action. How do we establish and carry out procedures for moving from decisions into action?
8. Good two-way channels of communication are basic. How do we solve the innumerable problems of effective two-way communication?
9. Many conflict situations are sure to develop. How do we learn to meet conflict situations?
10. Extensive use is made of consultants. How do we learn how to get the most from their services?
11. We are interested in widespread lay participation. How do we establish workable machinery and procedures for appropriate lay participation?

12. We are interested in securing student participation. How do we establish workable machinery and procedures for appropriate student participation?
13. The child growth and development approach appears to be fruitful. How do we learn how really to put to work the child growth and development materials and procedures?
14. Many basic facts regarding the local community and ways of living are significant raw materials with which to work. What facts do we need and how do we get them?
15. We now accept the significance of human relationships. We believe that "how people feel" is important. How do we find out how people feel and put it to work?
16. Many attach basic importance to "people getting to know each other." How do we facilitate people getting to know each other?
17. There is a growing tendency to think of the individual school as the operational unit in instructional improvement efforts. How do we determine: (1) In what things is the school system the operational unit? (2) In what things is the individual school the operational unit? (3) In what things is the individual classroom the operational unit?
18. Problems of coordination are numerous and tremendously important. How do we provide most effectively for essential coordination?
19. Bundles of printed materials are received by individual schools from various central offices. How do we plan, prepare, distribute, use, (eliminate) these materials so that they make a real contribution?
20. We are recognizing the need to evaluate our efforts to improve the curriculum. How can we learn how to evaluate the curriculum improvement program?
21. How do we speed up the process of curriculum improvement? How do we discredit widely held invalid ideas about the curriculum? How do we reduce resistance to curriculum change?

As pointed out in the introductory statement, this article merely attempts to make a *beginning* in identifying curriculum problems on which research is needed. However, the solving of these problems through research would represent a signal achievement in the direction of improving our educational program.

---

### **C.E.R.A. to Meet at Chico State College**

The annual spring conference of the California Educational Research Association will be held at Chico State College on March 30-31, 1951. The opening meeting on Friday evening, March 30, will be a panel which will feature a prominent research person. Saturday morning's program will open with a general session at which a number of research papers will be read. An outstanding speaker has been secured for the Conference Luncheon. The major portion of Saturday will be devoted to sectional meetings which have been organized to meet the interests and needs of those who attend the Conference. Inquiries regarding the C.E.R.A. Conference should be directed to Dr. Lawrence T. Crawford, Chico State College, Chico, California. Dr. Crawford is chairman of the program committee.

# Classroom Cheating— A Measure of Children's Character or Teachers' Attitudes?

WILLIAM J. LODGE  
Chico State College

INTEREST in classroom cheating, as such, or as a measure of children's character, probably has declined steadily since the elaborate Character Education Inquiry of some twenty years ago. In view of the fact that Hartshorne, May, and Shuttlesworth(3) found an average coefficient of correlation of only .25 on scores of the same individuals measuring two types of "dishonesty," the lack of interest in further corroborative research may seem natural. The present article suggests, however, in view of the C.E.I. findings, a study by Carlson(1), and the author's own research (4, 5), that the measurement of cheating might well be reviewed by the classroom teacher as one method of evaluating his own teaching techniques.

Hartshorne, May, and Shuttlesworth(3) did not attack the class morale problem directly, but on the basis of substantial correlations for classes between several types of "dishonesty," they concluded that the key factor in class morale or code was the teacher-pupil relationship. They(2) report less cheating on the whole when these relations are free and cordial and the spirit is one of good will and cooperation.

Carlson's study(1) of approximately 1,500 fifth and sixth grade Iowa children tends to confirm the Hartshorne, May, and Shuttlesworth findings. Carlson measured pupil attitudes, cheating behavior, and teacher attitudes, finding that there was less cheating under teachers who were least in favor of holding up school marks as an incentive. Carlson also pointed out that:

- (a) attempts to isolate any single factor or group of factors differentiating cheaters from non-cheaters have been notably unsuccessful
- (b) classroom morale is subtle and complex
- (c) children tend to be partly in accord with their teachers and partly in fear, suspicion, or antagonism
- (d) a classroom in which cheating is prevalent probably can never be regarded as a healthy environment.

---

*Dr. William J. Lodge is professor of education at Chico State College. His prior professional experience included teaching and administration in the public schools of New York, New Mexico, and California. He is the author of an earlier article (see California Journal of Educational Research, 1:219-222, November 1950) pertaining to the use of personality questionnaires. He received his Ph.D. at the University of California, Berkeley, in 1949.*

---

## Present Study

The writer's cheating behavior findings(4, 5) resulted as a by-product of his study of the validity of paper-and-pencil personality and attitude questionnaires.<sup>1</sup> Since cheating itself was not the focal point of interest, teachers were evaluated only in a subjective way in terms of a continuum ranging from a friendly, democratic, relaxed classroom atmosphere to a cold, autocratic, tense situation. But the wide range in cheating from class to class and the fact that the percentage of children cheating in each classroom was roughly in inverse order to the way the experimenter rated their teachers, based on his visits to the classrooms and testing in them, is a striking, even if subjective, finding.

The cheating phase of the experiment was conducted by administering the *Van Wagenen Unit Scales of Attainment in Reading*(6) to 522 fifth, sixth, and seventh grade California public school children. The papers were secretly and carefully scored by the writer and then returned to the children ostensibly for self-scoring against a key written on the blackboards by the classroom teachers. The teachers maintained a normal situation by remaining in their rooms and working at their desks, giving casual supervision to the children. The papers were subsequently re-scored

TABLE I  
PERCENTAGE CHEATING BY CLASSES

CLASS	GRADE	N	Percentage Cheating
A	7	29	20.69
B	7	39	28.20
C	5	30	30.00
D	6	34	35.29
E	7	33	39.39
F	5	35	40.00
G	6	35	40.00
H	5 and 6	32	40.63
I	7	27	40.74
J	6	32	46.87
K	5	36	47.22
L	6 and 7	34	52.94
M	6	31	58.06
N	5	28	58.62
O	5	29	62.07
P	6	38	63.16
Total		522	44.06

<sup>1</sup>One of the criteria employed was the correlation of expressed cheating attitudes with cheating behavior as measured in an experimental situation.

by the experimenter, and those children who had changed any answers from wrong to right were recorded as having cheated. The extent of cheating is shown in Tables I, II, and III.

**TABLE II**  
PERCENTAGE CHEATING BY GRADES

GRADE	N	Percentage Cheating
5.....	174	46.55
6.....	217	49.31
7.....	131	32.06*
Total	522	44.06

\* The markedly lower percentage of seventh grade children cheating is not a typical finding and is believed to be attributable to a chance superiority of seventh grade teachers in the present sampling and to a relatively small number of seventh grade pupils.

**TABLE III**  
PERCENTAGE CHEATING BY SEX

SEX	N	Percentage Cheating
Girls.....	263	47.91
Boys.....	259	40.16
Total	522	44.06

## Conclusions and Implications

Obviously the highly significant differences are to be found between classes rather than between grades or sexes. The excessive cheating was found in those classrooms where, in the writer's judgment, the atmosphere was coldly formal and the teacher used autocratic techniques. Conversely, the least cheating occurred in those rooms where a friendly, democratic procedure prevailed. Other investigators, with whom the writer concurs, have suggested that sex differences in cheating are presumably due to greater anxiety on the part of girls to conform and to please parents and teachers by superior school achievement; in short, they are under greater pressure than are boys generally. However, in the present study, the difference between the percentage of boys and girls cheating yielded a critical ratio of 1.79, which falls slightly short of statistical significance.

It is suggested that teacher pressure is a strong and unhealthful factor in classroom cheating behavior and that teachers might well appraise themselves in terms of its measurement, perhaps doing so from year to



year or, in the case of platoon schools, from class to class. The procedure may have research and administrative possibilities but, for public relations and personnel morale reasons, respectively, the writer would prefer to see the technique as a measuring device in the hands of the classroom teachers.

Cheating, according to the accumulating evidence, is symptomatic of poor morale, which is caused, at least in part, by autocracy in the classroom. If teachers are truly interested in giving more than lip service to the concept of democracy in the classroom, they might well evaluate the results of their efforts in that direction. The present study suggests a possible approach.

#### BIBLIOGRAPHY

1. Carlson, H. S., "Teachers' Attitudes in Relation to Classroom Morale and Cheating," *Journal of Experimental Education*, 4:154-213, December, 1935.
2. Hartshorne, H., and May, M. A., *Studies in Deceit*, MacMillan Company, New York, 1928.
3. Hartshorne, H., May, M. A., and Shuttlesworth, F. K., *Studies in the Organization of Character*, MacMillan Company, New York, 1930.
4. Lodge, W. J., *A Study of Some Factors Affecting Responses on Personality Questionnaires*, unpublished Ph.D. thesis on file in the University of California Library, Berkeley, 1949.
5. ———, "What about the use of Personality Questionnaires?," *California Journal of Educational Research*, 1:219-222, November, 1950.
6. Van Wagenen, M. J., *Unit Scales of Attainment in Reading*, Divisions 2 and 3. Educational Test Bureau, Inc., Minneapolis, 1934.

---

### Psychological Corporation Cautions Educators Regarding Use of Correlation Coefficient

A correlation coefficient is not a judgment — it is only a number summarizing the relationship of two sets of facts to each other. It is not a substitute for thinking — quite the contrary, it should be the impulse which starts the thinking process going. The size of a given coefficient is important, but *why* it is that size is much more important. The statistician who evaluates the correlation coefficient in terms of an index of efficiency, a coefficient of alienation, or the percentage of criterion variance accounted for, is performing a useful task. But the more basic, more meaningful step — which must be taken by the counselor, the teacher, the administrator, the personnel man — is to look at the coefficient as a clue to further investigation. This investigation should include not only the *test*, but also the *criterion* (grades or ratings or whatever), the *population* (the particular group of students or employees or patients involved) and any other factors which might have influenced the state of affairs which the coefficient describes. — (Alexander G. Wesman in Test Service Bulletin, December 1950, The Psychological Corporation.)



# B-E Day in San Francisco: An Appraisal

IVOR F. CALLAWAY

San Francisco City Schools

THE idea for Business-Education Day originated in the Michigan State College and has been carried out successfully for two years in the State of Michigan and elsewhere. The movement grew through the efforts of Carl M. Horn, professor at Michigan State and originator of the "flying classroom" project, who brought together many leaders of business and education in order to set up local programs.

The idea gained momentum on a national scale when the Chamber of Commerce of the United States, recognizing the pioneering work of Mr. Horn, printed a brochure giving full particulars on how a local Chamber of Commerce could carry out a B-E Day in their own community. The National Chamber saw a need for business men and educators to get together in order to bring about greater understanding and cooperation between these two groups.

As a result of this national recognition, many local chamber executives and school administrators have collaborated on Business-Education Days and the results have been overwhelmingly favorable.

## B-E Day in San Francisco

Business-Education Day was introduced to the San Francisco Chamber of Commerce by Bert Levit, president of the San Francisco Board of Education, and member of both the national and local Chambers of Commerce. Mr. Levit is also a member of the Committee on Education of the United States Chamber and he took an active part in the preparation of San Francisco's B-E Day.

The local Chamber readily saw the importance of such a day and plans were made to sponsor this special event. After some two months of preparation on the part of both businessmen and educators, the first San Francisco Business-Education Day was held on November 10, 1950. This was the first time such a special event was conducted in a city as large as San Francisco. There were more than two hundred participating companies with over three thousand teachers as their guests for the day.

In general, the programs of the various business firms consisted of a tour of the company, luncheon with the company executives acting as hosts, and discussion sessions on problems and activities of specific companies as well as a general discussion of the private enterprise system.

---

*Ivor Frederick Callaway teaches at the High School of Commerce in the San Francisco City Schools. He was assigned to the Central Office last fall to serve as school coordinator of B-E Day and E-B Day. His article is unique in that it provides an appraisal of the San Francisco B-E Day in which the entire personnel of the schools participated. Mr. Callaway attended Stanford University and received his M.A. degree in 1948.*

---

The reactions to San Francisco's first Business-Education Day were far more favorable than anticipated. Both businessmen and teachers were very articulate in expressing a great deal of interest and satisfaction after participating in the activities of the day. Dr. Clish, Superintendent of Schools, received numerous letters from teachers who made very favorable comments, and Paul A. Bissinger, Chamber president, likewise received many letters from the participating companies who voiced similar comments. All indications seem to point out the fact that Business-Education Day was a worthwhile project and was beneficial to all participants. An effort is being made to make this an annual affair to bring about a closer cooperation between the two basic institutions of our American way of life — Business and Education.

### **Preparations for B-E Day**

Two main committees, an Executive Committee and a Program Committee, were set up to prepare the details of B-E Day.

The Executive Committee was composed of many of the city's leading businessmen as well as all of the members of the San Francisco Board of Education. This group acted in an advisory capacity and lent its prestige through endorsement and support of the program.

The Program Committee was asked to organize and prepare plans for the many phases of B-E Day. Those comprising this committee included some fifteen representatives of participating businesses, a staff member of the Chamber of Commerce, a member of the San Francisco Police Department, and a school coordinator who acted as liaison between the Chamber of Commerce and the School Department. Four subcommittees were formed under the following headings: Announcements, Orientation, Participation, and Traffic.

### **Activities of School Coordinator**

As a member of the Program Committee the School Coordinator carried out various details which were as follows:

1. Prepared and distributed questionnaires in order to ascertain teachers' interests in regard to types of companies they wished to visit.
2. Tallied questionnaires and attempted to assign teachers according to their first choices.
3. Re-tallied questionnaires giving recognition to teachers' second and third choices. (This was necessary as the distribution of teachers' first choices was rather skewed. Various demands exceeded the available accommodations, and, in some cases small numbers of requests, did not facilitate a special assignment. These small requests were then consolidated.)
4. A third rearrangement of teacher assignments had to be made, and in some cases teachers were given arbitrary assignments of companies to visit. These arbitrary assignments were made necessary for reasons such as lack of accommodations, last minute company drop-outs, etc. There were a few companies who had to drop out of the program for valid reasons, and who apologized profusely as they sincerely wanted to participate.

5. In order to assist the staff member of the Chamber of Commerce, the school coordinator offered his services to contact personally various companies and enlist their participation in B-E Day. Teacher assignments were thus made sooner, as this phase of the Chamber's work was very time consuming.
6. Teachers and school administrators were kept informed of the progress of B-E Day preparations through the *San Francisco Public Schools Bulletin* and the *Superintendent's Supervisory Bulletin*.
7. Final instructions in regard to teacher assignments and various B-E Day procedures were sent to the schools two days before the event and any last minute changes were made by phone.
8. An information booth was set up in a theater lobby on B-E Day. Many questions were answered and, it is felt, much confusion was avoided through this provision.
9. Two loose-leaf binders were kept as a file and a guide on teacher assignments. The first book was devoted to the participating companies, listing teachers assigned to each company. The second book was organized by schools and school departments, and contained teachers' names and respective company assignments.
10. The school coordinator also cooperated with the Chamber of Commerce in making arrangements for publicity which included publications, radio programs, and television shows.

## Publicity

San Francisco's Business-Education Day had a wide range of publicity coverage under the direction of the publicity manager of the Chamber of Commerce. Daily newspapers, business publications, school journals, radio stations and television stations are examples of the media used to publicize this special event.

In order to add human interest to the event, two teachers were chosen to represent the schools in pre-B-E Day articles and on radio and television appearances. An eight year old boy was also chosen to carry out the theme "Mr. Business Man of Tomorrow." He also appeared on a television show and was featured in newspaper articles. This human touch did much to arouse general public interest and, in turn, the purpose and importance of the day was brought to the attention of the entire city.

## Appraisal of Business-Education Day

A general school appraisal of B-E Day was conducted by circulated questionnaires. The schools were asked to answer a few general questions, and the results were tabulated according to frequency of similar responses.

An analysis of the results may be misleading unless certain qualifications are presented. In the first place, the consensus of opinion was very favorable and the majority of the teachers were reluctant to criticize any phase of the program. They felt that any criticism would not be justified in view of the fact that B-E Day was such a worthwhile project and such a satisfying departure from the traditional teachers' institute. However, since it was explained that the questionnaires were circulated in order to compile a guide for future use, the responses were made in that vein.

It is interesting to note the results of question number one which indicates that some 96.3 per cent of the teachers felt that B-E Day was a very satisfactory experience. Only 3.0 per cent felt it was "fair," and less than 1 per cent said they thought it was an unsatisfactory day. When one considers the extent of the program and that more than 3000 teachers participated, the results of question one are most gratifying.

## Analysis of Teacher Responses

I. *Was Business-Education Day a satisfying experience? Indicate the number of teachers who feel that Business-Education Day was:*

### Total for all schools

Excellent.....	84.2%
Good.....	12.1%
Fair.....	3.0%
Unsatisfactory.....	0.7%

### Breakdown by types of schools

	Excellent	Good	Poor	Unsatisfactory
Elementary.....	84.5%	10.9%	3.8%	0.8%
Senior High.....	85.8%	12.8%	1.1%	0.3%
Junior High.....	82.5%	15.0%	1.8%	0.7%
Special.....	79.1%	10.4%	10.4%	0.0
Trade and Continuation.....	85.5%	8.9%	4.0%	1.6%

The answers to the next three questions are listed below in rank order; i.e., as the first item under each question received the highest number of responses and the last item received the lowest.

The range of responses varied for each question. For example, in question two, item one was mentioned 124 times and item fourteen only 7 times. Under question three, item two (the first criticism) was mentioned 33 times and item fourteen only 3 times. The first item suggesting improvement under question four shows 35 responses, while the last item under this category had 2 responses.

Here again, it would be well to qualify the results of questions two, three, and four. Question two received the greatest number of responses, which showed 503 or 54 per cent of the total for all three questions. The responses of questions three and four numbered 202 and 227 respectively or a combined figure of 46 per cent. It is also important to note the top response for question three, which was "No Objections," and the like response for question four, "No suggestions — just do it again."

As was mentioned before, the items under the specific questions are listed in rank order, but a further stipulation should be noted. The majority of the responses for each question come within the upper half of the items listed. For further explanation the following figures are presented: Question two shows 84.89 per cent of its responses within the first 8 items; question three shows 76.23 per cent within the first 6 items; and in question four we find 65.63 per cent coming within the first 8 items.

*II. Indicate by general statements the features contributing to the success of Business-Education Day.*

Number of Responses — 503

Per Cent of Total Responses — 54.0%

1. Advance planning by both Board of Education and Business.
2. Hospitality of Business — cordial, cooperative attitude of Business.
3. Establishment of good public relations.
4. Excellent keynote speaker.
5. Interesting company programs and enthusiasm of business leaders.
6. Information gained about business procedures, operations, and problems.
7. Insight gained into management and employee relationships.
8. Improved understanding of standards required of employees.
9. Mutual participation — discussions.
10. Comprehensive and instructive tours of facilities of specific companies.
11. Opportunity to see the various types of businesses of the city and people working in them.
12. Printed materials available.
13. Understanding gained of "Free Enterprise System."
14. Favorable departure from routine institute.

*III. Indicate by general statements any objectionable features.*

Number of Responses — 202

Per Cent of Total Responses — 21.7%

1. No objections.
2. Some groups were too large.
3. Day too long — too much crowded into one day.
4. Arbitrary assignments.
5. Some company programs were not well prepared and lacked interest.
6. Speeches too long and too many.
7. General meeting too long.
8. Tardiness and lack of courtesy on part of teachers.
9. Discussions too technical.
10. General meeting called too early.
11. Assignment notices to teachers not sent in time.
12. Insufficient discussion time.
13. Too little presented to justify full day.
14. Political attitudes and opinions expressed by a few business executives.

*IV. If Business-Education Day is repeated in lieu of a future Institute Day, have you any suggestions for its improvement?*

Number of Responses — 227

Per Cent of Total Responses — 24.3%

1. No suggestions — just do it again.
2. Make assignments according to teachers' choices or in related fields.
3. Smaller groups.
4. Eliminate (or shorten) general meeting.
5. End day earlier.
6. Give earlier notification of assignments and provide advance data on company.
7. Companies should not be required to pay for teachers' lunches and transportation.
8. B-E Day should be adopted as a permanent feature of Teachers' Institutes.
9. Companies should be given preliminary information as to teachers' interests in order to enhance discussion topics.

10. All programs should be uniform in length.
11. More time for discussions.
12. Visit two companies in one day.
13. Include specific firms as well as general classifications on questionnaires.
14. Furnish transportation for all if possible and arrange for central end-of-day terminals.
15. Alternate speeches with periods of activity.
16. Provide for closer contact with employees.
17. Include firms outside of San Francisco.
18. Provide for an exchange of experiences after Institute.
19. More emphasis on abilities, qualities and training needed by employees.
20. More emphasis on how a specific local company fits into the national or international picture.
21. Companies should not feel they have to entertain.

It is the opinion of the writer that the values derived from B-E Day should not be limited to one day in the year, and a year round contact should be maintained between the schools and the business people of San Francisco. It is felt that the material resources and the public relations aspect of such an association are unlimited and of value to both participants. Already incidental correspondence between certain teachers and companies has resulted from our first B-E Day. It is felt that it would be worthwhile to coordinate this activity through the Superintendent's Office and set up a means of bringing practical information and materials to the schools. (A leading San Francisco businessman suggested the possibility of setting up a speakers' committee that would be ready to serve the schools.)

A program of this sort would tend to bring about a deeper understanding on the part of both groups, and the schools as well as the business people would realize support through cooperation.

### Follow-up Program

Plans are being made for the second half of Business-Education Day, which will be a day set aside for the business people to visit the schools. This phase will be called Education-Business Day and will be held some time in the spring semester 1951.

It is hoped by the school staff that the businessmen will find their visit to the schools as profitable and enlightening as was the teachers' day with business. Both teachers and administrators are looking forward to this return visit, as they feel it will afford a splendid opportunity to explain the many activities and related problems of a school system in a large city. The achievements of the schools, their objectives, their staff and organization, their risks and costs and what business can do to cooperate are but a few examples of the phases of school work to be presented to San Francisco businessmen on Education-Business Day.

# Improving Questionnaires

EDWARD A. TAYLOR  
Alameda (California) County Schools

IN SPITE of many repeated objections to questionnaire surveys, the questionnaire still remains one of the most frequently used devices in educational research.

The objections in the literature to questionnaires are generally aimed at certain poor practices rather than at the questionnaire technique itself. Careful studies have indicated that the questionnaire technique, if carefully carried out, yields valid and reliable data. It is the intent of the writer to point out some of the pitfalls encountered in preparing and distributing questionnaires. A careful consideration of these suggestions should enable investigators to prepare increasingly effective research instruments.

Thorough prestudy of a problem will often make the questionnaire shorter or even unnecessary. Do not ask for information that is otherwise available in reports, directories, bulletins, and so forth.

## Sampling

In making up the sample to be contacted, select the respondents carefully. Be sure they have the information you desire. It is generally better to exert more pressure on fewer persons and obtain a high percentage of returns from a small well-chosen sample (perhaps by interview) than to issue a broadside invitation to many and base the conclusions on a small percentage of responses.

In presenting the introductory appeal to the sample, an approach in person is most effective. If that is impossible, it is best to send a letter of introduction from some person or institution well known and liked by the respondent. If possible, have the person or institution sponsor the study. The problem should be explained at this time. Needless to say, the problem should be one worthwhile to the respondent as well as to the investigator. A return postcard should be enclosed with the introductory letter in order that the respondent can indicate in advance his willingness to cooperate. This postcard also verifies his mailing address.

The respondent should be promised a summary of the results and should be assured that his responses will be held in confidence. It should be indicated that the questionnaire will require no more of the respondent's time than absolutely necessary.

---

*Edward A. Taylor is supervisor of testing and evaluation in the Alameda County Schools office at Oakland, California. Dr. Taylor has been active in the field of testing and has conducted several significant test evaluation studies. He received his doctorate last year at the University of California, Berkeley.*

---



When sending the questionnaire to a large organization, it should be addressed to the chief administrator. He will generally give it to the proper person and direct that it be filled out. Send two extra copies; one to be used as a scratch or working copy, and the other to be kept as a carbon copy for comparison with the promised summary.

The questionnaire should reach the respondent at a time convenient to him, not during vacations or at the opening or closing of school terms. If the questionnaire *must* go to his residence (as in the case of follow-up studies of high school graduates), it should be timed to arrive on a Saturday morning. A self-addressed, stamped envelope should be included for the response.

### Selection of Items and Terms

Each item in the questionnaire must be clear and directly related to the problem. Not only should the items be related to the problem, but they must also be related to the circumstances of the respondent.

It is most important to avoid ambiguity of questions and answers. For instance: "Father's Age?-----" How does one answer this if his parents are dead?

Define any terms that might be misunderstood. The simple word "teacher" is often difficult to define. Would it include full-time counselors? Good's *Dictionary of Education*, with definitions established by more than 100 reviewing committees, is the accepted standard for terms in education. In working with lay people, it is well to use words low on the Thorndike word list.

The more objective the fact investigated and the more within the respondent's experience, the more valid and reliable the information that can be gathered. For instance, children report the number of brothers and sisters more accurately than the number of rooms in their houses (is a porch a room?) and the number of rooms more accurately than the number of books in their homes.

If the investigator has (and shows) bias, he will get more responses from those who share his bias than from those who do not. In judgment, attitude, or opinion surveys, no hint should be given as to the favored or expected answer.

Ask only questions that are likely to be answered truthfully. In surveying industrial arts teachers, for example, such a question as "How many accidents occurred in your shop last year due to an inadequate safety program?" is not likely to be answered truthfully. Incidentally, the prejudicial aspect of this question is not its only fault.

Don't expect the respondent to compute averages, percentages, or totals. Such a request is an imposition on his time. Besides, some people are poor in arithmetic. If possible, try to include "cross-checking" questions to verify consistency of replies.



## Format Important

In preparing the questionnaire itself remember that a neat reproduction job is most effective. Printing or multilithing is preferable to mimeographing or dittoing. In any case, use paper stock that will take fountain pen ink. Allow adequate spacing for either handwritten or typewritten responses. It is well to have the horizontal and vertical spacing between responses conform to standard typewriter spacing.

Seek responses that can be summarized in some form. Call for simple responses; check marks are best. It will be easier to tabulate and prepare summaries if the responses fall along the right-hand edge of the paper. Each response should be numbered for ease of tabulation. Whether or not long answers are desired depends on the nature of the data to be collected. Remember that short answer spaces encourage short answers and long answer spaces encourage long answers.

If the questionnaires will be handled frequently for tabulation or analysis, having them microfilmed will prevent the inconvenience of lost data. Microfilming is also an excellent technique for filing raw data.

If the data are to be entered on I.B.M. or Remington Rand Hollerith cards for machine sorting and tabulation, consult the machine operator when planning the response sheet. Much time can be saved in punching and sorting the cards if his recommendations are followed.

## Preliminary Tryout

It is most important to get critical reactions of others in order to revise and improve the questionnaire. Then it should be tried out in preliminary form, preferably on a sample similar to the one to be investigated. Needed improvements will usually be indicated.

If there are many unanswered questions or unanswered questionnaires, the adequacy of the data becomes suspect. Possible causes of unanswered questions or questionnaires are:

The respondent is too busy to answer.

The respondent may not have received the questionnaire.

The respondent may have forgotten to answer.

The respondent may not have the data available.

The respondent's situation may be so unfavorable that he is reluctant to reveal it to others.

The respondent's situation may be so favorable that he is reluctant to reveal it to others. He may be operating on a budget far in excess of his needs. An example might be a school administrator with a pupil-teacher ratio of 15 to 1.

The respondent may be uninterested in the study.

The questionnaire may be carelessly constructed.

The questionnaire may be too involved or require too much time.

The questionnaire may indicate such bias as to antagonize the respondent.

## Follow-up and Validation

Not all questionnaires will be returned immediately. Follow-up letters are effective in appealing to those failing to respond. When only a few hold-outs are left, try follow-up letters in longhand. When these fail, a telephone call or, better still, a personal visit may bring in the die-hards.

A note of thanks and a summary of results should be sent to the co-operating respondents. This paves the way for the next investigator who may have to gather data from them.

Spot checking, by interviewing a few of the respondents, is a good way to validate the data gathered by questionnaire.

## Suggestions Based on Literature and Experience

The foregoing is a brief summary of suggestions for questionnaire makers. They arise out of the literature available and the experiences of the writer in the preparation and distribution of questionnaires. The suggestions presented are simple ones and have proved most effective in refining the questionnaire technique.

### BIBLIOGRAPHY

- Crawford, Claude C., *The Technique of Research in Education*. Los Angeles: University of Southern California, 1928, pp. 177-87.
- Monroe, Walter S., and Englehart, Max D., *The Scientific Study of Educational Problems*. New York: Macmillan Company, 1936, pp. 40-46.
- Symonds, Percival M., *Diagnosing Personality and Conduct*. New York: Century Company, 1931, pp. 122-73.
- Toops, Herbert A., "Questionnaires" in *Encyclopedia of Educational Research* (Walter S. Monroe, Editor). New York: Macmillan Company, 1950, pp. 948-51.

## Startling Facts Gleaned from Recent White House Conference

The percentage of persons under 18 in the total population is increasing, and will continue to do so for at least 15 years.

A majority of the nations children now live in urban areas. Only about one-fifth live on farms. Eight million out of 43 million children moved in 1949.

The sharpest rise in child population was in the Pacific Coast states. All areas have more children now than ever before.

Half the children are in families of three or more children. One out of eight children is not living with both parents. Home ownership is now at an all-time high, 55 per cent of 39 million dwelling units now being lived in by their owners.

Accidents kill more children and young people than disease. Most babies today are born in hospitals. Preventable diseases remain the major cause of sickness among children. Public health measures have removed as threats smallpox, diphtheria, and typhoid fever.

All states now require school attendance at least up to 16 years of age. — (The Phi Delta Kapan, January 1951, p. 252.)

# Sex Education in the Elementary School

LLOYD S. VAN WINKLE

Escondido (California) Union School District

THIS study concerning the teaching of sex education in the San Diego City Schools was undertaken because of the apparent need for more information on the subject. During the last three or four years, much space has been given to the subject in periodicals. The San Diego City Schools have been working in this field in an organized way longer than other city school systems. They have made much progress, but they do not hesitate to advise that they have only scratched the surface.

## Research Techniques

The study included forty-two elementary schools in the San Diego School District, and it involved about 2,400 elementary school children. The data for the study were collected from a questionnaire which was sent to the parents of the sixth graders. It was sent through the principal's office of each participating school. The files of the director of Health Education Service for the schools, which contain valuable information, from 1942-1949 were made available. Various members of the school staff were consulted for additional information. Much of the information gathered was largely firsthand, since the work was carried on directly with the help of the administration, teachers, nurses and counselors, parents and children. A careful and exhaustive study of the literature of the field was made in order to become thoroughly acquainted with what had been done.

## Need for Sex Education

Perhaps the greatest driving influence in this whole matter of sex education in our schools is the parents themselves. They are realizing more and more that the business of living is far more complex than in their day, that youth needs to be given full consideration as a human being, and that it needs to feel that it may find and share the understanding that rightfully goes with adulthood.

## Parent Education in Social Hygiene

From the beginning, it was apparent that the adults needed to be better acquainted with the subject; they should be better prepared to answer their children's questions. Consequently, they were invited in and heard lectures illustrated with charts and diagrams. They still were not sure that they could do the work as well as the school people who gave the lectures.

---

*Dr. Lloyd S. Van Winkle is principal of the Central School at Escondido, California. Prior to his present position, which he has held for three years, Dr. Van Winkle had served as elementary school administrator in other school districts. His article is based on his doctor's dissertation, which was completed at Colorado State College of Education in 1949.*

---

Accordingly, with the help of the American Social Hygiene Association to further aid the parents, courses were offered in the subject through the schools' Adult Education Department. These classes continued for the parents for eight years with a remarkable record of attendance. For the year, 1948-1949, about 37.0 per cent of the parents of the fifty elementary schools attended the meetings in which the type of lessons that were to be presented to the children were explained and illustrated.

The small percentage of attendance of parents for 1948-1949 might be questioned, but one factor must be considered. In those schools in which the course had been given for several years, the parents felt more or less acquainted with it, as they had attended other classes in previous years. Also, many parents worked during the day and could not be released for so short a time. However, for the school year, 1948-1949, 97.0 per cent of the parents endorsed the program in their respective schools. The strength of the program lies in the fact that it is not something superimposed by school authorities upon the community or the children; it is directly parent-inspired and parent-supported. The material given in the course had been carefully previewed by educators, parents, and church groups.

### **Grade Placement of Sex Education**

In addition to fulfilling a need for more information in the teaching of sex education in the elementary school, there were other reasons of equal importance for the study. The problem of determining just where in the curriculum was the proper place for sex education to be taught was a factor of great importance. A most interesting survey of approximately 360 San Diego elementary school teachers revealed their opinions as to the grade level appointment for the beginning of instruction in social hygiene; 31.8 per cent of the teachers agreed that the instruction should begin at the sixth grade level. The next highest percentage of 15.2 per cent favored the fourth grade level. Two groups, each representing 13.8 per cent of the total, favored beginning it in kindergarten and the seventh grade, respectively.

Reports indicated that 66.6 per cent of the teachers felt that sex education was being taught in one way or another as far down as the kindergarten. Fundamentally, the ground work for the San Diego school program is laid in the kindergarten through play and work activities. The formal phase of this program is instituted in the sixth grade, and it is continued through high school. The study revealed that after eight years of experimentation, 84.0 per cent of the elementary schools participated in the sex education program.

### **Method of Presenting Instruction**

The method of procedure in teaching the course in the elementary school is another area of interest. Since the entire program is directly par-

ent-inspired and parent-supported, the child is not permitted to take the course unless he has a written permit from his parent.

The course is given in five lessons in which the story of "How We Grow Up" is developed very carefully. Since the fundamental purpose of teaching sex education is the formation of good attitudes, the school authorities have recognized that the information on sex must be scientifically correct, and it must be given to children in the language that they will understand. *It is important to meet the child where he is.*

The five lessons are of such a nature that, for the best results, 61.5 per cent of the schools chose to have four of them taught to boys and girls separately. One lesson, the presentation of films, is shown to both groups. It was generally felt by 69.4 per cent of the teachers that segregation of groups should begin at the sixth grade level, or at least by adolescence.

### Who Should Teach the Course?

Closely related to the methods of teaching such a course, is the problem of who shall teach the subject — a special teacher or the regular classroom teacher? There are many inherent dangers in every social hygiene program, and they must be constantly guarded against. Good intentions are not enough! The person who works with this type of activity is more aware than anyone else of how hair-trigger the program is by its very nature. It can "blow up" or it can succeed. It can be the worst and most dangerous of influences; it also can be for many the only means of acquiring desirable emotional adulthood.

The study revealed that there were five types of "teachers" for the groups — the principal, school nurse, an outsider (foreign to his own staff), a special (other duties in the system), and the sixth grade teacher. Only six sixth grade teachers of the forty-nine instructors have been found to have the preparation or the inclination to assume complete responsibility to teach the course. However, other things being equal, the classroom teacher is the proper person to teach the course. The most efficient teachers for the subject are not found in the rank and file, but are found among the nurses and other especially trained personnel. Very little released time has been granted for the teaching of this subject.

### Progress Is Slow, But Certain

Educators recognize that they still have a long way to go toward reaching their goal. During these ten years, there were times when there were no apparent signs of achieving this goal. But the years have brought about enough evidence of a change to prove its apparent success. It will take a generation or more for results of this intensive program of sex education to be measured. The problems which arise will be met with more courage and honesty since the proper resources are being provided by such instruction.

# A Method of Studying Non-Conforming Pupils

STANLEY R. OSTROM  
Long Beach Public Schools

**ADMINISTRATORS** of the three large Long Beach senior high schools have been concerned for years over the problems posed by a small percentage of students whose interests and needs are apparently not met by the regular school program. This group is described by classroom teachers as truant, defiant, non-cooperative, indifferent, and in some instances incorrigible. Some are students whose chief crime is that of not liking school; others have fairly lengthy court records. The problem is complicated by California school laws that require school attendance through grade twelve or to age eighteen.

## Long Beach Study

This paper is a report of the methods used in a study carried on in Long Beach for the purpose of better understanding the problems created by this group of pupils. The study was limited to boys, as they represent the largest segment numerically and also because of limitations of time that were encountered. Since it was felt that the information obtained in the study would be of only minimum value in the individual adjustment of twelfth grade pupils, the study was limited to tenth and eleventh grade boys. Also included is a description of methods being utilized to apply the results of the study in anticipation of some remedies.

## Choice of Sample

Five criteria were prepared with the cooperation of the three schools and the director of high schools. On the basis of these criteria the vice-principals and counselors of the three high schools identified between 25 and 50 boys from each school. The original sample was made up of 92 boys. The five criteria are:

1. Habitual offense of school rules, such as smoking, truancy, off-grounds, ditching classes, and statements or activities indicative of undue interest in sex.
2. General indifference to or aggressive opposition to the school program. Excessive failure records.
3. Evidence of social immaturity.
4. Certain physiological characteristics, such as extreme slovenliness or extreme "dandiness" in dress, unusual haircut, and in general an inferior physical bearing.

---

*Stanley R. Ostrom is coordinator of child welfare services in the Long Beach Public Schools. He formerly served as state supervisor of occupational information and guidance services in North Dakota, state supervisor of guidance services in Delaware, and instructor in education at Syracuse University. He has also had experience as a high school teacher and high school principal. Dr. Ostrom received his doctorate at Syracuse University in 1948.*

---

5. Desire to transfer to other schools. Many of the boys in this group feel that transfer to some other school will be the answer to all their problems.

## Methods

Each boy was interviewed. During the interview, the study was explained in detail and the boy's cooperation was requested. If he did not wish to participate, the interview was terminated. No pressures were utilized to obtain the boy's participation. The boys who were willing to participate were asked to fill out two questionnaires that dealt with their attitudes toward various developmental factors. The directions and a few sample items from these questionnaires are found in Example I and Example II.

### EXAMPLE I

In answering the following questions you may state your ideas and opinions in your own way. Please answer the questions fully, giving two to five answers to each.

1. What great people, living or dead, do you admire most?
2. Some things in life give people a feeling of greatness; such things seem wonderful and important. What things give you such a feeling?
3. It seems that no matter how careful we are, we all have things happen that make us feel foolish. What things make you feel that way?

### EXAMPLE II

Each of the following words or phrases makes you think of something. Will you kindly write the first few thoughts that come to your mind as you look at each of the nine items?

1. I think my friends . . .
2. At home I . . .
3. To me, an education is . . .

Obviously, the questionnaires had to be explained very painstakingly to each boy individually.

## Cumulative Records

Cumulative folders are often rich in developmental information. To obtain this knowledge the counselors, utilizing the information found in the folders, filled out a data sheet which was turned over to the interviewer. This information gave very helpful insight to problems originating in the homes as well as the school.

A battery of eight tests was administered to each boy. These tests were:

*Otis Self-Administering Test of Mental Ability—Gamma*  
*Cooperative General Achievement Test in Natural Science*  
*Stanford Advanced Arithmetic Test*  
*Revised Minnesota Paper Form Board*  
*Bennett Mechanical Comprehension Test*  
*Minnesota Clerical Test*  
*Strong Vocational Interest Blank for Men*  
*Bell Adjustment Inventory, Student Form*



Each boy was rated by at least four teachers on a seven-point rating scale, with the following traits being rated: Initiative, Leadership, Cooperation, Dependability, Emotional Stability, Ability To Get Along, and Courtesy.

A final interview was then held with each boy. During the first half of the interview an interpretation of all available data was made. Considerable emphasis was placed on vocational adjustment. The latter half of the interview was given over to a series of seven questions. These questions were designed to gain a picture of the boys' attitudes toward school, home, and future plans. The subjects of these seven questions were:

1. School attitudes (subjects, teacher, etc.).
2. Comparison of junior high school with senior high school.
3. Family relationships.
4. Eventual plans.
5. School activities.
6. Interests and likes.
7. Presence or absence of faculty members who had been especially friendly.

## Results of Study

From information gathered in the study it was possible to make individual analysis and a group report. In the group report, it was possible to summarize the following types of information:

1. Abilities and interests.
2. Attitudes.
3. Home backgrounds.
4. Physical factors.
5. Attitudes of teachers toward pupils.
6. Vocational prospects.

A study of this nature would be a waste of time if the results were not carefully considered by the faculties of the schools involved. With this in mind, a series of meetings were held with faculties of two of the three high schools involved, and it is hoped that meetings will be arranged in the other school. The areas that have met with most scrutiny in the series of faculty meetings to date are:

1. *Need for curricular changes.*

The results of the study and the consensus of teachers are that many pupils who cause difficulties in school are doing so because their needs are not being properly met. For a good segment of our school population, the school offerings are quite academic. Failure to experience success in the classes that they take leads to frustration, and that again to aggressive behavior or to other equally unsatisfactory compensatory action.



### 2. *Teacher-counselor relationships.*

Many of the teachers feel that they could do a more adequate job of individualizing their instruction if they knew their pupils better. With this in mind, the point has been raised that closer relationship between teacher and counselor might to a large extent enable the teachers to become better acquainted with their pupils and to utilize the counseling services more adequately.

### 3. *Teacher-pupil relationships.*

Pupils in the study stated that some of their teachers do not appear to appreciate their problems. A number of the teachers recognize that more understanding and genuine interest in these youngsters would to a degree eliminate the tensions existing at the present time between the teachers and this segment of their pupils.

To aid in the solution of this situation, very serious consideration is being given to a plan whereby teachers will attempt to take a special interest in one or two pupils who need encouragement and extra attention. It is hoped that the feelings of belonging and comradeship that result from this type of relationship will aid in the elimination of the resentments and frustrations experienced by the pupils who have difficulty adjusting to the present school situation.

---

## **1951 Annual State Conference On Education Research To Be Held At Santa Barbara**

The Third Annual State Conference on Educational Research will be held at Santa Barbara, California, on October 19-20, 1951, according to an announcement issued by the State Advisory Council on Educational Research. The Conference will be conducted on an invitational basis as in 1950. A total of 175 persons attended the 1950 Conference at Mills College. The chairman of the 1951 Conference will be Dr. Hugh Bell of Chico State College. Inquiries regarding the 1951 Conference should be addressed to Dr. Frank W. Parr, California Teachers Association, 391 Sutter Street, San Francisco.

# Social Maturity and First Grade Achievement

MARGARET LOUISE OREAR  
Bellflower (California) Schools

INCREASINGLY apparent in the literature in recent years has been the concern of educators with the significance of the social maturity of pupils in the determination of school policies and programs. This study attempted to clarify the meaning of social maturity by contributing to its operational definition. It gave consideration to the bearing of personality on learning, in focusing attention on social growth, not simply as an educational goal in itself, but also as a factor possibly influencing the attainment of other goals in education. Likewise, the investigation was designed to add clarity to the understanding of the "whole child" through recognition that such understanding is attained by studying the several aspects of personality as they contribute to the total in a wholly related manner.

## Other Studies

Relatively little research has been done specifically on social maturity. Consequently most of the literature to be reviewed had chiefly methodological value. Interestingly enough, the greater number of the studies were found to be on the nursery school level. The investigations utilized were concerned with patterns of social development and behavior, the influence of the home, the influence of the school, and interrelationships among multiple factors. Also included in the review were the works of Doll and of Munn in developing their scales of social maturity, which were used in the present study.

## The Present Study

The first grade level was selected for the research because it is a period of special importance, being characterized by so many beginnings. The investigation consisted of an appraisal of (1) the relationship between social maturity and other factors also involved in first grade achievement including intelligence, chronological age, and home environment, and (2) the relationship between social maturity and progress in school, especially in reading.

---

*Margaret Louise Orear is director of special services in the Bellflower (California) School District, where she has served for the past seven years. She previously served as teacher and counselor in the Garvey (California) School District. Her article is based on her doctoral dissertation which was completed at the University of California at Los Angeles in June 1949.*

---

A child's social maturity was identified in terms of his attainment of social competencies and attitudes enabling him to behave with a degree of independence considered appropriate in his culture for his stage of development and, thus, making it possible for him to effect acceptable adaptations between himself and his environment. Measurement of this characteristic was made with both the Vineland and the Munn scales.

### Function of Scales

The Vineland Social Maturity Scale appraises the individual's progressive capacity for becoming increasingly more independent by utilizing items to evaluate his status in self-help, locomotion, occupation, communication, self-direction, and socialization. It is similar to the Stanford Binet in organization and is administered through an interview with the subject's parent. Thus, it measures social maturity in terms of behavioral competencies at home.

The Munn Scale measures the social maturity of primary children as revealed in their behavioral attitudes at school. Its items are concerned with cooperation, originality, curiosity, neatness and orderliness, cheerfulness, kindness and sympathy, fair-play, and leadership. It is a rating scale and is filled out by the child's teacher on the basis of her observations.

### Sampling and Techniques

The subjects of this study consisted of 230 children entering first grade in the public schools of Bellflower, California. A sub-group of 65 was utilized for the parts of the investigation in which the Vineland Scale was employed; the pupils included were shown to constitute a representative sample of the total group. Appraisal instruments, in addition to the two social maturity scales, included California Test of Mental Maturity, Lee-Clark Reading Readiness Test, Garvey Reading Test, a modified form of a University of Iowa procedure for judging parents' attitudes, and a University of Iowa procedure for judging parents' attitudes, and a sociometric test. Facts on chronological age and number of siblings were also gathered. Statistical measures of relationships and of differences were computed. To supplement these findings, brief qualitative studies were made to illustrate how the dynamics of particular situations support or deny the trends in relationships sustained for large groups.

### Results

Like other cross-sectional studies, this investigation revealed group tendencies rather than laws applicable to individual prediction, as is indicated by the size of the coefficients in Table I. The finding that the two social maturity scales used had only limited communality ( $r = +.333$ ) emphasized the fact that the manifestations of such a characteristic as "social maturity" vary with the approach to its appraisal.

**TABLE I**  
CORRELATIONS BETWEEN SOCIAL MATURITY AND  
POSSIBLY RELATED FACTORS

FACTOR	Value of <i>r</i>	
	Munn	Vineland
Munn Rating.....	---	.333
Mental Age (C.T.M.M.).....	.328	.423
I.Q. (C.T.M.M.).....	.201	.394
Chronological Age.....	.162*	.295*
Reading Readiness (L.-C.).....	.417	.532
Reading (Garvey).....	.418	.216*
Number of Siblings.....	-.053*	-.111*
Social Acceptability.....	-.205*	-.106*

\* Not statistically reliable at the 1% level of confidence.

As is revealed in Table I, scores for both scales were somewhat positively correlated with intelligence and reading readiness; neither set of ratings, however, was related significantly to age, social acceptability, or number of siblings. The lack of association found between social maturity and age was inconsistent with the suggestion frequently heard that these two factors are probably fairly closely related. In the present study, however, the findings were not without probable explanation. The result obtained with the Munn ratings and age would seem attributable in part, at least, to the circumstance of each teacher-rater's having only a part of the first grade age range represented among her class. Also, the narrow age range for the entire group of subjects could have been a contributing factor. For the Vineland ratings the absence of association with chronological age may be implicit in the standardization.

The relations of end-of-the-year reading achievement, as measured by the Garvey Test, to social maturity ratings on both the Munn and Vineland Scales were noteworthy. Supplementing the correlations between reading and each of the social maturity scales found in Table I were the results obtained in comparing the average reading achievement of the more socially mature and the less socially mature subjects. The more socially mature half of the group, as appraised with the Munn Scale, achieved a mean reading score ( $1.76 \pm .48$ ) which differed significantly from that ( $1.50 \pm .38$ ) of the less socially mature half of the group; the critical ratio in point was 4.36. In contrast, however, the more socially mature half of the group, as evaluated with the Vineland Scale, had a mean Garvey reading score ( $1.75 \pm .39$ ) which differed only by a chance amount from that ( $1.62 \pm .45$ ) of the less socially mature half of the group; in this case the critical ratio between means was only 1.04. These findings suggested that behavioral attitudes indicative of social maturity

(Munn) seemed to be more closely associated with reading progress than did behavioral competencies evidencing such maturity (Vineland).

An appraisal of the place of social maturity in relation to over-all adjustment and accomplishment in first grade was made by comparing those subjects whom the teachers had decided needed a two-year first grade program with those who were designated for a one-year program. The dual program plan for first grade has been used in Bellflower for some years to try to provide sufficient flexibility to meet the developmental needs of young children; it was inaugurated soon after the entrance age was lowered to 5 years, 6 months. Since the criteria used in designating children for the appropriate length program were all-encompassing — including social, emotional, physical, and mental maturity, the resultant two groups of pupils were appraised suitable for a study of contrasts in over-all adjustment. The data are summarized in Table II.

**TABLE II**  
COMPARISONS OF ONE-YEAR AND TWO-YEAR  
FIRST GRADE PUPILS

FACTOR	Number		Critical Ratio
	1-year	2-year	
Reading (Garvey) .....	140	74	10.43
Reading Readiness (L.C.) .....	145	76	9.59
Munn Rating .....	151	79	8.56
Mental Age (C.T.M.M.) .....	145	76	7.22
Vineland Social Age .....	44	21	6.74
Chronological Age .....	151	79	5.80
Vineland Social Quotient .....	44	21	5.71
Intelligence Quotient (C.T.M.M.) .....	145	76	3.89

Of particular interest among these findings was the large critical ratio obtained when the mean Munn social maturity ratings of the two groups were compared, for these ratings were not available to the teachers when they were making designations to the one- and two-year programs. Quite apparently, however, the teachers considered as important the same characteristics which have been included in the Munn Rating Scale; it would seem, therefore, that the use of the Scale by teachers would be valuable in objectifying their judgments.

### Social Maturity and Parent Attitudes

To study the relation between social maturity and parent attitudes toward children, ratings were made on the parents on a five-point scale by the Vineland examiner and the classroom teacher. The five attitudes appraised were: protects versus rejects, logical versus illogical approach,

encourages versus discourages ideas, fosters versus inhibits social development, and calm home versus tension. It was found that social maturity as revealed through behavioral attitudes at school (Munn) seemed to correlate higher with the several parent attitudes than did such maturity as exhibited in behavioral competencies at home (Vineland). With both scales the parent attitude most related to social maturity was that of a logical versus an illogical approach in parent guidance.

## Implications

In summary, several implications for education can be drawn from the present study; these include:

1. It is possible and worthwhile to appraise social maturity in first grade children.
2. While high social maturity does not assure an individual child of successful first grade achievement, substantial social maturity, especially as manifested through behavioral attitudes, is an asset. The converse has also been substantiated.
3. The necessity of considering all available data about a child has again been re-emphasized. The fairly low correlations found throughout point to the dangers of prognosticating for individual children on the basis of limited information.
4. The relationships between certain parent attitudes and the level of social maturity manifested in children's behavioral attitudes at school have implications for parent-school consideration.

## BIBLIOGRAPHY

- Betts, E. A., "Social and Emotional Readiness for Reading," *Educational Administration and Supervision*, 30:65-86, 139-164, February, March, 1944.
- Bonney, M. E., "A Study of Social Status on the Second Grade Level," *Journal of Genetic Psychology*, 60:271-305, June, 1942.
- Bradway, Katherine P., "Social Competence of Grade School Children," *Journal of Experimental Education*, 6:326-31, March, 1938.
- Bronfenbrenner, Urie, *The Measurement of Sociometric Status, Structure and Development*. Sociometry Monographs, No. 6, Beacon House. New York: Beacon House, Inc., 1945, 80 pp.
- Doll, Edgar A., "Annotated Bibliography on the Vineland Social Maturity Scale," *Journal of Consulting Psychology*, 4:123-32, July-August, 1940.
- , *The Vineland Social Maturity Scale: Revised Condensed Manual of Directions*. Vineland, N. J.: The Training School, Department of Research, Series 1936, No. 3, April, 1936, 30 pp.
- Grant, Eva I., "The Effect of Certain Factors in the Home Environment Upon Child Behavior," *Researches in Parent Education*, University of Iowa Studies in Child Welfare, Vol. 17, No. 4. Iowa City: State University of Iowa, 1939, pp. 63-94.
- Koshuk, Ruth P., *Social Influences Affecting the Behavior of Young Children*, Child Development Monograph, Vol. 6, No. 28. Washington, D. C.: Society of Research in Child Development, National Research Council, 1941, 71 pp.
- Little, Henrietta H., "The Relationship between Nursery School Training and the Intelligence and Social Maturity of Preschool Children," *Pennsylvania State College Studies in Education*, Part IX, No. 22, pp. 43-44, 1940.
- Louttit, C. M., and Watson, Ruth D., "Vineland Social Maturity Scores of Entering First Grade Children," *The Training School Bulletin*, 38:133-7, November, 1941.
- Murphy, Lois Barclay, "Socialization of the Child," in Newcomb, Theodore M., and Hartley, Eugene L., co-chairmen, *Readings in Social Psychology*. New York: Henry Holt and Company, 1947, pp. 129-139.
- Pechstein, L. A., and Munn, M. D., "Measurement of Social Maturity in Children," *Elementary School Journal*, 40:113-23, October, 1939.

# Research and the Teaching of Written Expression

H. ORVILLE NORDBERG  
Mills College

It is suggested frequently that relatively few of the nation's secondary school teachers of the language arts are prepared adequately to teach the skills of written expression. To correct or to improve this condition, it has been proposed that the art of teaching writing might be furthered if teachers were made more aware of the findings of educational research relative to that teaching. And while the very real obstacles of availability and interpretative difficulty of the research literature have been cited as reasons why the research has not been used by experienced teachers, it yet would appear reasonable to assume that the most recently trained young teachers might be prepared to teach written expression effectively. Their experiences in current teacher-education programs should have acquainted them with the most efficient and worthwhile methods of teaching written expression.

## The Problem

To what extent can it be expected that these new teachers will be acquainted with the research literature in written expression and with the evident implications for the improvement of instruction?

An inquiry outlined by the writer in the January 1950 issue of this *Journal* sought, in part, to determine the awareness of research implications among several groups of student-teachers with respect to the teaching of written expression at the secondary level. It was found that the new teachers could not be expected to demonstrate in their classroom teaching of written expression a significant awareness of the implications of the research.

## Research Findings vs. Teacher Opinion

Research has shown that sentence structure, more than any other single factor, reveals the maturity and the skill of the writer of English. The student-teachers tested were inclined rather to place greater faith in vocabulary selection as a criterion. They were doubtful, however, as to the amount of aid which might be lent the lucid expression of thought through the repeated use of conventional sentence diagraming.

---

*Dr. H. Orville Nordberg is assistant professor of education at Mills College, where he has taught for the past three years. His article, which is based on his Ph.D. dissertation, is the second in a series relating to student-teachers and their awareness regarding research. His first article appeared in the January 1950 issue of this publication.*

---



General agreement prevailed that secondary school pupils prefer to write, and do write better, on topics within their own experience. But it was clear that the new teachers would suggest general titles rather than a variety of specific titles for writing, despite the implications of research.

Certainly unity of thought is an important characteristic of competent writing. And yet 44 per cent of the new teachers did not have any useful information regarding the demonstrated relationship between intelligence and unity of thought in writing.

A detailed knowledge of the terminology of the parts of speech was correctly deemed not crucial to proficiency in writing. There was no discernible awareness, however, with respect to the relationship between knowledge of formal grammar and the use of appropriate grammatical forms in writing. It was impossible to find any assurance that student-teachers, among those tested, knew anything of the efficacy of developing general writing ability through individualized procedures.

Is detailed theme correction, when used, generally more effective in eliminating errors in capitalization, in punctuation, or in spelling? Two thirds of the possible responses were either blanks or incorrect guesses. Detailed correction helps the brighter pupil somewhat more to eliminate mechanical errors in written expression; the new teachers were equally certain that such correction benefits the slower pupil to the same degree.

The student-teachers generally agreed, in error, that the quality of ideas and the mechanics of a pupil-written essay are either necessarily or very closely related. This conviction was held despite the research which has made clear that there probably has been excessive attention to arbitrary and minute mechanical forms to the detriment of the development and communication of ideas. Nor can proficiency in one be assumed to assure proficiency in the other.

Capitalization errors occur more often at the beginning of sentences, chiefly because of lack of sentence sense on the part of growing pupils. The student-teachers were not aware of this, nor were they aware of the closer relationship of complex sentences to maturity rather than to the intelligence quotient.

Rather than devise a simple error quotient in the mechanics of written expression, more than one half of the student-teachers tested would count the errors and teach from that point without considering opportunity for commission as a denominator. On this test item, one fourth of the subjects did not even venture to guess. It appears probable that secondary school pupils will continue to undergo a measure of otiose drill which will not be reflected in improved written work.

Only a few responses more than those covered by chance indicated a realization that improvement in writing is speeded when pupils are made thoroughly aware of their writing deficiencies. Knowledge regarding the demonstrated value of proofreading, especially for brighter secondary

school pupils, seemed almost complete. And yet there was doubtful awareness that most girls will write more words in the same amount of time on the same subject than will most boys. When asked if the written expression of secondary school pupils generally is superior to oral expression in thought and in sentence structure, the student-teachers had to resort to guessing. They had no real knowledge of the research.

### Implications

It is doubtful whether all teachers of written expression soon will abandon the martyr complex engendered by their weekly meticulous correction of dozens of pupil-written reports and essays. Instead of working directly on the specific errors individually committed, and encouraging the lively expression of ideas through direct composition methods, the student-teachers seemed reconciled to a red-pencil routine which seriously may subordinate unity, coherence, and the imaginative expression of thought. The evident opportunities and advantages of the laboratory methods of teaching written expression do not seem to have been fully accepted.

It would appear that the teacher-education program might devote more attention to the practical assistance available through research findings.

---

### The Bias of Intelligence Tests

Socio-economic factors influence the school's diagnosis of a child's intelligence. According to present "standard" intelligence tests, lower-class children at ages 6 to 10 have an average I.Q. which is 8 to 12 points beneath the average I.Q. of the high socio-economic group. For children of age 14, the present tests define the average I.Q. of the lowest socio-economic group as being 20 to 23 I.Q. points beneath that of the higher occupational groups.

In the same way, the present tests define rural children, on the average, as less intelligent than urban children; southern white children as less intelligent than northern white children, and so on. There is now clear, scientific evidence, however, that these tests use chiefly problems which are far more frequently met in urban middle-class culture.

New experimental tests, using culturally fair problems, have been constructed. In these new tests, the authors are not seeking a measure of "cultural background," or of "home background," or of "work habits," or simply of school performance. We wish to measure that ability which underlies, uses, and is used by these economic, social, and home factors. This essentially hereditary ability is what we call "real intelligence," "innate ability," "smartness," or "mother-wit." — (Excerpts from article by Allison Davis, "Socio-Economic Influences on Learning," *Phi Delta Kappan*, 32:255, January 1951.)

---

## Book Reviews

---

### **Status and Fiscal Significance of Federal Lands in the Eleven Western States**

Committee on Tax Education and School Finance, National Education Association, Washington, D. C., October, 1950, 207 pp.

This long awaited study of the NEA Committee on Tax Education and School Finance has recently become available to students of problems in State and local support of schools. The tax significance of Federally-owned real estate is analyzed in *Status and Fiscal Significance of Federal Lands in the Eleven Western States*, published in October, 1950. Data for the study were collected not only by the Study staff, but through the cooperation of the staffs of state education associations and state departments of education.

The closest approach possible to a complete inventory of Federal holdings was attempted. On this basis, a relatively rough calculation of the local tax loss was made by applying known local tax rates against the best available assessed values. The cooperation of local and state assessing agencies was extremely valuable and important in this phase of the study.

Within the general framework discussion of the entire problem, each of the eleven western states is treated in a separate chapter. The problems and data are too complex to be discussed herewith in any significant fashion. The 404 million acres of Federal lands alone comprise nearly 54 per cent of the total surface acreage of these eleven states. The total estimated assessed valuation of Federal real estate in 1948 was about 13 per cent of the total assessed valuation of all taxable property in these states, and it is virtually certain that the estimates on Federal values are too conservative. Again, rough estimates reveal that had these values been taxed, the total might have been equivalent to almost ten per cent of the state and local taxes actually collected.

It needs to be remembered, the study points out, that within presently existing laws the Federal government does make significant payments in these states amounting to nearly a third of the estimated total which would have been derived if all Federal real estate had been taxed at local rates.

Students of school finance will be interested in the conclusions of the study, which may be presumed to have had some influence on recent Congressional legislation providing federal aid to schools affected by

Federal activities. Several appendices carry a brief treatment of the fundamental issue: federal vs. state or private ownership of public lands and tidelands, with statements or official positions of interested and organized groups.

This volume will be of interest to legislators, state and county government officers, and administrators of school districts heavily affected by Federal real estate.

## **A Half Century of Teaching Science and Mathematics**

Central Association of Science and Mathematics Teachers, Inc., Box 408, Oak Park, Illinois, 1950, 197 pp.

This volume, which commemorates the fiftieth anniversary of its sponsors, presents a summary of the significant developments in the teaching of science and mathematics during the first half of the twentieth century, and an account of the development of the Central Association of Science and Mathematics Teachers and the part it has played in these developments. Each section of the book is authored by one or more authorities in their respective fields. The chapter on "Mathematics," for example, was written by Dr. Breslich of the University of Chicago.

The five major divisions of the volume are: Central Association and the Journal, Mathematics, The Biological Sciences, The Physical Sciences, and The Preparation of Teachers. Science and mathematics teachers, as well as curriculum directors, will enjoy reading this anniversary volume which traces the evolution of science and mathematics teaching during the past 50 years.

## **Toward Better College Teaching**

FRED J. KELLEY

Federal Security Agency, U. S. Office of Education, Bulletin 1950, No. 13, Washington, D.C., 71 pp.

This bulletin was prepared by one of the recognized authorities in higher education, Dr. Fred J. Kelley, to help meet the demand for better college teaching. It is based primarily upon returns from checklists dealing with certain devices which have as their purpose the improvement of college teaching. One checklist concerns practices in the graduate schools which prepare college teachers; the other, practices in the undergraduate colleges to strengthen the work of already employed college instructors.

The primary purpose of the bulletin is to provide specific source material and data for the use of those in higher education. College administrators and college teachers will find the study to be of great value in supplying information for study-conferences or faculty meetings.

## Evaluative Criteria (1950 Edition)

Cooperative Study of Secondary-School Standards, Washington 6, D. C., 305 pp.

The Cooperative Committee of Secondary-School Standards was organized in 1933 to: (1) determine the characteristics of a good secondary school; (2) find practical means and methods to evaluate the effectiveness of a school in terms of its objectives; (3) determine the means and processes by which a good school develops into a better one; and (4) devise ways by which regional associations can stimulate and assist secondary schools to continuous growth. To these ends a study, both extensive and intensive, was carried on during the thirties. As a result of this study, the Committee prepared and published in 1940 four volumes: *Evaluation of a Secondary School, General Report*; *Evaluative Criteria*; *Educational Temperatures*; and *How to Evaluate a Secondary School*. All of these have been used extensively during the past decade.

It was recognized by the Cooperative Committee that its publications would need to be revised in due course of time. As a basis of preparing the revision, the Committee solicited the reactions of those who had used the 1940 materials. It also conferred with a large number of specialists or consultants in the various fields of secondary education. The 1950 edition represents the combined thinking of all of these persons.

The present edition of *Evaluative Criteria* combines the earlier publications into a single volume. The four major sections of the volume are: basic information, school evaluation, individual evaluation, and summary. Those who were familiar with the 1940 edition will be happy to learn that the new edition places less emphasis on educational philosophy and more on pupil needs.

When properly used, the *Evaluative Criteria* should serve to stimulate a school staff to improve. The result should be better education for boys and girls.

---

## Research News and Views

---

The California State Teachers' Retirement System estimated that 8,100 new teachers would be needed in California in 1950-51 to replace those lost to the profession during the year. Of this number, the State Teachers' Retirement System estimates that 1,600 would retire, 500 would be removed by death, and that 6,000 would resign and leave the profession.

In an effort to determine the cause of the high rate of withdrawal from the profession, the Division of State Colleges and Teacher Education of the State Department of Education, in cooperation with the State Teachers' Retirement System, contacted each teacher who requested the return of his retirement contributions. Each teacher was asked to indicate: (1) the amount and kind of his teaching experience, (2) the type of credential held, (3) his age, and (4) his reason for withdrawing from teaching. Those replying were not required to identify themselves.

Despite the anonymous nature of the inquiry, only 59 per cent of the 2,400 teachers contacted replied. Of those answering:

1. 61 per cent reported that their latest teaching was in 1948-49.
2. Types of credentials held were evenly divided between regular and emergency.
3. 51 per cent were elementary teachers.
4. 54 per cent had taught in California from one to three years.
5. 25 per cent had had 10 years of teaching experience; 15 per cent had had two to three years.
6. 25 per cent were 25 to 29 years of age; 17 per cent were 40 to 50 years old.
7. The most frequent reasons reported for withdrawing were: moving out of California, 20 per cent; maternity, 19 per cent; and marriage, 12 per cent.

A full report of the survey was included in the May 1950 issue of *California Schools*, the official publication of the California State Department of Education.

\* \* \* \* \*

The 1950 edition of the *Evaluative Criteria*, first published in 1940 by the Cooperative Study of Secondary-School Standards, has been released by the American Council on Education. The revision reflects the new developments in education in recent years and, also, the reactions and suggestions of those who used the earlier form. The 1950 edition combines the essentials of the three separate publications of 1940 into one volume of *Evaluative Criteria*. It is believed that the 1950 edition is more valid, more usable, and much improved over the evaluative instruments found in the 1940 edition. (See also book review.)

The Los Angeles City Schools has prepared three bulletins reporting on the size of classes, as of October 1950, in the local kindergartens, elementary schools, and junior and senior high schools. The kindergarten bulletin presents annual class size data beginning with the school year, 1946-47. The elementary school report includes annual figures beginning with the school year, 1934-35; while the junior and senior high school bulletin covers all of the subject fields in the curriculum and dates back to 1946-47. Some of the facts revealed in the Los Angeles study are:

1. Most classes in the elementary schools fell within the 31-40 group; computed by years, the percentages were found to be: 78 in 1946-47, 82 in 1947-48, 81 in 1948-49, 79 in 1949-50, and 79 in 1950-51.
2. The percentage of classes of 40 and over for the five year period was found to be: 9.7, 2.6, 1.7, 1.8, and 1.1.
3. In the junior high schools the over-all average since October 1947 has been reduced from 33.0 pupils per class to 32.4, a reduction of 0.6 pupils per class.
4. In the junior high schools, 87.4 per cent of the classes have an enrollment of 39 or less pupils in 1950-51.
5. In the junior high schools, 12.6 per cent of the classes enroll in the current school year 40 or more pupils; 79.2 per cent of these large classes were found to be in music and physical education.
6. In the senior high schools the over-all average since October 1947 has been reduced from 30.8 students per class to 30.0, a reduction of 0.8 students per class.
7. In the senior high school, 88.9 per cent of the classes have an enrollment of 39 students or less; and 11.1 per cent have an enrollment of 40 or more. Of the latter figure, 78.4 per cent were in music and physical education classes.

\* \* \* \* \*

The apparent uncertainty of the times is reflected in the vocational thinking of students, according to a recent Northwestern University survey. Forty-six per cent of the 1322 senior men are not certain what type of job they will seek when they graduate next year. However, nearly half of the class plans, at least tentatively, to enter some type of business or industry. The social sciences placed second, followed by scientific interests of the engineering-physics-medicine nature. Next choice was the entertainment world. Journalism and writing ranked last.

A total of 37 vocational preferences were listed by the Northwestern seniors. Engineering was the leading specific preference, followed by sales, advertising, accounting, and general business, respectively.

\* \* \* \* \*

Unique among free materials available to interested teachers and librarians is a packet on the use of American folklore in our schools. This material is made available by the National Conference of American Folklore for Youth. Requests for the packet should be addressed to Dr. Elizabeth Pilant, executive secretary, Ball State Teachers College, Muncie, Indiana.



